

REMARKS/ARGUMENTS

The following is submitted in response to the Office Action mailed March 1, 2004 (Paper No. unknown) in connection with the above-identified application and is being filed within the three-month shortened statutory period set for a response by the Office Action.

Claims 1, 2, and 4-58 remain pending in the present application. Claims 10-58 have been withdrawn from further consideration as being directed to a non-elected invention. Applicant respectfully requests reconsideration and withdrawal of the rejection of the claims, consistent with the following remarks.

The Examiner has rejected claims 1, 2, and 4-6 under 35 U.S.C. §102(e) as being anticipated by French et al. (U.S. Patent No. 6,297,018). Applicant respectfully traverses the §102(e) rejection.

Independent claim 1 as currently presented recites a method of evaluating raw assay data that is arranged in a three dimensional array, where the raw assay data is derived from an assay and the assay is subject to systematic and positional effects. In the method, a high throughput screening assay is performed to identify a biologically active agent in a collection of test agents, where the three-dimensional raw assay data is generated from the assay. The three-dimensional raw assay data is compensated for the systematic and positional effects. Thereafter, the compensated three-dimensional data is scored and formatted according to a determined format, and the biologically active agent is identified by identifying a test agent that generates a data point which statistically deviates from other data points in the formatted scored data.

As set forth in more detail in the disclosure of the present application, the method of the present invention positionally corrects raw assay data from an assay comprising a plurality of longitudinally oriented (i.e., stacked) plates p . As may be appreciated, in the assay, the stack of plates p is exposed to some form of external influence such as heat, light, radiation, chemical, gas, etc. Each plate p has a plurality of wells organized into rows i and columns j , where each well may have an assay sample located therein. Each well (i, j, p) is thus positionally identified according to the three dimensions thereof - row i , column j , and plate p . As part of the assay, then, a data measurement of some sort is taken from each well of each stacked plate.

Each well thus has a raw value x_{ijp} associated therewith, where the raw values x_{ijp} comprise the raw assay data, and the raw assay data thus likewise can be positionally identified according to the three dimensions of the corresponding wells. According to the present invention, each three-dimensional raw value x_{ijp} of an associated well (i, j, p) may be deconstructed into a residual data value that may be employed to compare the well to all other wells, and positional values representing effects that are extraneous to the residual data value.

The French reference discloses a system and method for performing a luminescence-based assay with a plate of wells organized into rows and columns, and for correcting the assay data derived therefrom to correct for background light (as at columns 47-70). Crucially, in the system and method, the correction of the assay data is disclosed as being performed with regard to only a single plate, perhaps because the French system cannot perform luminescence detection on a series of stacked plates.

Thus, in the French reference, each well is positionally identified according to only two dimensions – row and column, and the resulting French raw assay data is likewise positionally identified according to only the two dimensions of the corresponding wells. Thus, the French reference with the two-dimensional wells and assay data does not disclose evaluating raw assay data that is arranged in a three dimensional array, as is required by claim 1, does not perform a high throughput screening assay to generate such three-dimensional raw assay data, as is required by claim 1, does not compensate such three-dimensional raw assay data, as is required by claim 1, and does not score and format the compensated three-dimensional data, as is required by claim 1.

Accordingly, Applicant respectfully submits that the French reference cannot be applied to anticipate claim 1 or any claims depending therefrom including claims 2 and 4-6. As a result, Applicant respectfully requests reconsideration and withdrawal of the §102(e) rejection.

The Examiner has rejected claims 7-9 under 35 U.S.C. §103(a) as being obvious over the French reference in view of the previously cited MATHSOFT reference. Applicant respectfully traverses the §103(a) rejection.

Applicant respectfully submits that since independent claim 1 has been shown to be unanticipated and is non-obvious, then so too must all claims depending therefrom be unanticipated and non-obvious, at least by their dependency. Accordingly, Applicant respectfully submits that the MATHSOFT reference cannot be combined with the French reference to make obvious claims 7-9.

Moreover, and at any rate, Applicant respectfully submits that the MATHSOFT reference discloses statistical data analysis software which may be employed to

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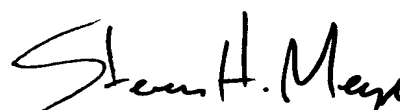
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perform statistical analyses and manipulations on data. However, and significantly, such reference does not disclose that any particular type of data be employed therewith, and in particular does not disclose or suggest that it be employed to compensate raw assay data for systematic and positional effects in the manner set forth in claims 7-9. Accordingly, and again, Applicant respectfully submits that the MATHSOFT reference cannot be combined with the French reference to make obvious such claims 7-9.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the §103(a) rejection.

In view of the foregoing, Applicant respectfully submits that the present application including claims 1, 2, and 4-9 is in condition for allowance, and such action is respectfully requested.

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